Forest Service
Wallowa-Whitman National Forest
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Route To:

Subject: Snow Basin Vegetation Management Project - Clarification of RHCA Silvicultural Prescriptions

To: Regional Forester

On June 27, 2012, the decision on the Snow Basin Vegetation Management Project was affirmed with the instruction to clarify the silviculture prescription for the 38 acres of riparian thinning in order to ensure that riparian management objectives are being met.

I am providing the following information, prepared by Snow Basin interdisciplinary team members Joe Sciarrino (Silviculturist) and Alan Miller (Fisheries Biologist). A copy of this letter is being sent to the 10 appellants and also posted at the Forest's website http://www.fs.usda.gov/projects/wallowa-whitman/landmanagement/projects.

Snow Basin Vegetation Management in Riparian Habitat Conservation Areas (RHCAs) to meet Riparian Management Objectives (RMOs)

Background

The Snow Basin project treats 38 acres of warm/dry upland vegetation within RHCAs. These are small portions of 12 stands that lie largely outside of RHCAs. All are at least 200 feet from Class 1 and 2 streams and lay upslope of roads. Due to these conditions and the effects analysis, the interdisciplinary team found treatment of these RHCA areas to be logical and recommended their inclusion in the project.

Silvicultural objectives for the treated portions of the RHCAs are listed below. Objectives 1 and 2 apply to all portions of the treated stands, while Objective 3 is distinctive to portions within RHCAs.

1. Maintain stocked stands, maintain and improve characteristic tree species composition, and stand structures.
   A. Manage stands within the Recommended Management Zone (RMZ) of Stand Density Index (SDI).
   B. Maintain/increase characteristic tree species.
   C. Maintain/improve characteristic stand structures.
2. Reduce risk of uncharacteristic disturbance and therefore disturbance severity.

A. Reduce stand density to within the RMZ. This would increase space between crowns, reducing the potential for crown fire.
B. Reduce understory (ladder fuels) to lower the risk of crown fire (high severity fire).
C. Maintain/improve the amount of fire resistant tree species (ponderosa pine and western larch).
D. Reduce host tree species for defoliating insects (grand fir and Douglas-fir).
E. Improve radial growth towards larger diameter fire resistant tree sizes.

3. Improve long-term stream shade by maintaining stands at 2/3 site potential for canopy closure.
   A. Stands would be thinned from below to within the RMZ. RMZ is full occupancy of trees and equates to at least 2/3 of the site potential as defined by SDI.
   B. Within the RHCA maintain all existing trees 21" dbh and greater.

Specific elements of *silviculture/fuels prescription* within RHCAs include:

- Commercial thinning from below to within the RMZ at a variable density
- Log forwarding is the required ground-based logging system
- No new landing construction will occur within RHCAs
- Maintaining all 21+ trees
- Favoring ponderosa pine and western larch
- Non-commercially thinning at a variable density
- Burning at low intensity (no ignition within RHCA resulting in backing-only fire)

INFISH Standards and Guidelines that relate to timber harvest in RHCAs are as follows:

INFISH TM-1: Prohibit timber harvest, including fuelwood cutting, in RHCAs except as described below.

a. Where catastrophic events such as fire, flooding, volcanic, wind, or insect damage result in degraded riparian conditions, allow salvage and fuelwood cutting in Riparian Habitat Conservation Areas only where present and future woody debris needs are met, where cutting would not retard or prevent attainment of other Riparian Management Objectives, and where adverse effects to inland native fish can be avoided. For priority watersheds, complete watershed analysis prior to salvage cutting in RHCAs.
b. Apply silvicultural practices for RHCAs to acquire desired vegetation characteristics where needed to attain RMOs. Apply silvicultural practices in a manner that does not retard the attainment of RMOs and that avoid adverse effects on inland native fish.

Only part (b.) of TM-1 is pertinent to Snow Basin project.

<u>Rationale for Consistency with INFISH S&G TM-1(b)</u>

Treatment of the 38 acres was designed using silvicultural and fuels prescriptions that would not retard attainment of INFISH RMOs and would avoid adverse effects on inland native fish. Project-specific mitigation measures were developed to reduce impacts to INFISH RMOs from commercial harvesting activities (see FEIS Appendix B-1). Impacts to fine sediment, stream

temperature, pool habitat and large woody debris (LWD) and channel morphology RMOs (i.e. bank stability, lower bank angle, and width-to-depth ratio) were analyzed in the Snow Basin FEIS. Based on the direct/indirect effects analysis it was determined that:

- Timber harvest and prescribed burning activities in general will result in short-term immeasurable increases in fine sediment.
- Effects to aquatic habitat from water temperature increases are unlikely as a result of thinning and prescribed burning activities under the action alternatives.
- No direct effects would occur to pool habitat or LWD because harvest activities would not occur within 200 feet of Class 1 and 2 streams.
- INFISH RHCA buffers should be sufficient to eliminate impacts to future LWD that originates from the streamside zone for Category1 and 2 streams.
- Impacts to channel morphology RMOs (i.e. bank stability, lower bank angle, and width-to-depth ratio) will not occur because activities that could result in mechanical bank disturbance will not occur adjacent to Category 1 streams.

In the Snow Basin Vegetation Management Project, all of the 38 acres of thinning in Riparian Habitat Conservation Areas (RHCAs) are in warm/dry upland vegetation types. These sites historically consisted of ponderosa pine and/or western larch and Douglas-fir with a strong large tree component. They experienced a short fire return interval of low intensity fire. As a result they were naturally maintained in an open structure.

The silviculture prescriptions are designed to improve the health of the stands by reducing stocking levels, restoring natural disturbance regimes (e.g. wildfire, insect and disease outbreaks), and retaining tree species that are present under natural disturbance regimes. Thus the silviculture prescriptions will improve the health resiliency of the stands. Treatment of the stands will reduce the risk of catastrophic events such as high severity wildfire, and insect and disease outbreaks compared to their current condition, as well as maintain RHCA effectiveness as a sediment buffer, and source of favorable microclimate and large woody debris to the stream.

The silviculture prescription treats whole terrestrial stands that extend into the 300 foot riparian buffer adjacent to streams. Thinning activities will occur at least 200 feet from stream channels. The prescription for the RHCA portion of these stands differs from the remainder of the stand by retaining all existing trees that are 21" dbh and greater. Harvest operation prescriptions have also been modified in these areas to minimize soil disturbance. (See FEIS Appendix B-1).

None of the riparian thinning treatment areas are directly adjacent to stream channels. They are all located upslope of an existing road that bisects the RHCA. There is no riparian vegetation in the portions of RHCAs found above the road, therefore no riparian vegetation would be directly affected by treatments. However, riparian vegetation and RHCAs, would indirectly benefit from these treatments because reducing the fuels in the 38 acres of RHCA being treated reduces the risk of a high intensity wildfire spreading below the road and into the stream adjacent portion of the RHCA. Averting large disturbance events in the RHCA allows for the continuing development of large woody debris (LWD) sources streamside.

Due to the thinning occurring more than 200 feet from Class 1 and 2 streams, and above the road, the portions of RHCAs being treated by the Snow Basin Vegetation Management Project are not areas expected to contribute naturally to large woody debris (LWD). Although to provide further enhancement of aquatic habitat, LWD will be added in 7.5 miles of streams within the project area.

Relationship of PACFISH/INFISH to ICBEMP Science Findings

PACFISH and INFISH were developed as interim strategies to arrest the degradation and begin the restoration of aquatic habitat and riparian areas (See PACFISH and INFISH EAs). Thus they were not intended to address the restoration of terrestrial habitats nor were they designed to provide for the long-term restoration of aquatic habitat and riparian areas because they were meant to be replaced within 18 months by a more comprehensive plan for the management for National Forests located east of the Cascades.

The Interior Columbia Basin Ecosystem Management Project (ICBEMP) was envisioned to be a scientifically sound, ecosystem based strategy for management of National Forest and BLM lands that would replace existing forest plans, PACFISH, INFISH and the Eastside Screens. However, the decision was made to not Implement ICBEMP, but to incorporate the goals, objectives and science into the revision of individual Forest Plans.

Forests were directed to incorporate ICBEMP science findings into management activities while continuing to manage under current forest plans including interim PACFISH, INFISH direction and applicable consultation and biological opinions, as well as the Eastside Screens for Oregon and Washington National Forests.

The need to maintain and restore terrestrial habitats was a key component of the ICBEMP science findings. Emphasis was placed on the restoration of the important vegetation characteristics of terrestrial habitats (such as species composition, vegetation structure, snags or coarse woody debris), which various terrestrial species need to survive and reproduce. The following habitats and recommendations applicable to the Snow Basin Project are:

- The extent of shade intolerant forest species (such as western white pine, ponderosa pine, western larch, whitebark pine and aspen) has decreased with associated decline in forest ecosystem processes and functions therefore increases in the extent of these species in pure stands and in mixed stands where ecologically appropriate is desirable.
- Old forest in the dry and moist forest potential vegetation groups is relatively scarce therefore management direction shall address steps appropriate to prevent the loss of this habitat and promote long-term sustainability of these existing stands. Restoration direction shall be developed to increase the geographic extent and connectivity of these vegetation groups addressing active and passive management options, where appropriate (such as harvest, thinning, prescribed fire and wildland fire for resource benefit).

In summary, the silvicultural prescriptions for thinning in RHCAs for the Snow Basin Project are consistent with INFISH and incorporate the ICBEMP science findings with regards to restoration of terrestrial habitats. No riparian vegetation occurs within these acres and silviculture

prescriptions for thinning were designed so as not to retard attainment of RMOs, therefore meeting INFISH requirements, particularly standard and guideline TM-1.

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